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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,720	12/21/2001	Markus Schetelig	1123.41020X00	5929

20457 7590 03/18/2005

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EXAMINER

TALAPATRA, ANIKA F

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,720

Applicant(s)

SCHETELIG ET AL.

Examiner

Anika Talapatra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/024,720.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/21/2001</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10024720, filed on 21 December 2001.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 21 December 2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

3. The drawings are objected to because Figure 1 does not have textual labels in addition to numerical labels. Textual labels are required. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional

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replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The abstract of the disclosure is objected to because it is longer than 150 words. The abstract must be within the range of 50 to 150 words. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

5. Claim 5 objected to because of the following informalities: Claim 5 states, "...that it is used for correcting..." This is incorrect. Claim 5 should state, "...that the method is used for correcting..." Appropriate correction is required.

6. Claim 7 objected to because of the following informalities: Claim 7 states, "...shiftedsignal..." This is incorrect. Claim 7 should state, "...shifted signal..." Appropriate correction is required.

7. Claim 7 objected to because of the following informalities: Claim 7 states, "...phase shifted signal on different or same sides..." This is incorrect. Claim 7 should state, "...phase shifted signal are on different or same sides..." Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action: A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States

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and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, and 5-6 rejected under 35 U.S.C. 102(e) as being anticipated by Brown et al. (U.S. Patent 6366622) (hereafter referred to as Brown).

As to claim 1, Brown teaches a method for correcting the direct current (DC) offset of a first signal, comprising: phase shifting the first signal for obtaining a second signal; and comparing the first and second signal with an estimated DC offset. A first signal (figure 10, input to 216) is phase shifted using a phase shifter (figure 10, 220) and a mixer (figure 10, 216) for obtaining a second signal (input to 352). The first and second signals are then compared with an estimated DC offset, by subtracting the DC offset from the signals (column 18, lines 14-53; figure 9; figure 10, 352, 354).

As to claim 2, Brown teaches a method for correcting the DC offset of a first signal. Brown teaches that the DC offset is adjusted if the result of the comparison is that the first signal and second signal are on different sides of the DC offset, and if the result of the comparison is that the first signal and second signal are on the same side of the DC offset (column 18, lines 14-53; figure 9; figure 10, 352, 354).

As to claim 3, Brown teaches a method for correcting the DC offset of a first signal. Brown teaches that the DC offset may be kept constant, when the first and second signals may be on the same side of the estimated DC offset (column 18, lines 14-53; figure 9; figure 10, 352, 354).

As to claim 5, Brown teaches a method for correcting the DC offset of a first signal. Brown teaches that the DC offset is corrected (column 18, lines 14-53).

As to claim 6, Brown teaches a method for correcting the DC offset of a first signal, wherein the demodulation is a demodulation for Gaussian Filtered Frequency Shift Keying (GFSK) modulated signals (column 21, lines 52-68).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Brown further in view of McNulty (Analog Wide Band Audio Phase Shift Networks, WA1SOV) (hereafter referred to as McNulty). Brown teaches phase shifting the first signal for obtaining a second signal. Brown does not teach using a low-pass filter (LPF) for obtaining the second signal from the first signal. McNulty teaches phase shifting the first signal for obtaining a second signal using a LPF (McNulty, page 1). McNulty teaches using a LPF for obtaining a phase-shifted second signal from a first signal, in order to reduce hardware required to generate the second signal. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention, to use a LPF in the system taught by Brown in order to obtain a second phase shifted signal from a first signal, using less hardware.

Allowable Subject Matter

10. Claims 8-15 objected to as being dependent upon an objected base claim 7, but would be allowable if the objections to claim 7, detailed in 6-7 above, were overcome.

11. The following is a statement of reasons for the indication of allowable subject matter: Claims 7-15 would be allowable if the objections to claim 7, detailed in 6-7 above, were overcome.

Brown (U.S. Patent 6366622) (hereafter referred to as Brown) teaches a method for correcting the DC offset of a first signal, comprising phase shifting the first signal for obtaining a second signal, and the first and second signals are then compared with an estimated DC offset, by subtracting the DC offset from the signals (Brown, figure 9; figure 10, 352, 354; column 18, lines 14-53). Brown fails to teach a decision circuit for deciding if the first signal and second signal are on the same side or different sides of the estimated DC offset; and a switch for connecting the phase shifted signal to the means for adjusting the estimated DC offset if the decision circuit decides that the first signal and second signal are on the same side or different sides of the estimated DC offset.

Lipcsei (U.S. Patent 6459602) (hereafter referred to as Lipcsei) teaches a method for correcting the DC offset of a first signal. Lipcsei teaches phase shifting the first signal for obtaining a second signal (Lipcsei, figure 3, 116), and comparing the first and second signal with a reference DC offset (Lipcsei, figure 3, 118, 119, 112, 301, 302), such that the output DC voltage is corrected by following the reference signal (Lipcsei, column 4, lines 40-60). Lipcsei fails to teach that the estimated DC offset is adjusted if the result of the comparison is that the first signal and second signal are on different sides of the estimated DC offset; the estimated DC offset is kept constant if the result of the comparison is, that the first signal and second signal are on the same side of the estimated DC offset; and a decision circuit and switch to adjust the estimated DC offset.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

i. U.S. Patent 6356218, Brown et al.; Brown teaches a circuit 300 acts to integrate incoming test signals. Incoming signals with no DC offset should have a total integration value of zero over any complete period of the periodic training pattern. If the integration result is not zero, the circuit adds or subtracts DC offset to the test signal until the integration value is zero (or near zero). The DC offset has been compensated for. Regular data transmission can thus begin using the appropriate DC offset compensation values (column 3, line 44- column 4, line 22; figure 3).

ii. U.S. Patent 4459699, Monticelli et al.; Monticelli teaches a signal window is created having a size equal to the peak-to-peak data signal level. When the data signal positive peak exceeds the upper window level, a current is fed back to the input to lower it by the desired amount. When the data signal negative peak exceeds the lower window level, an opposite current is coupled back to the input to raise it by the desired amount. As long as the signal fits within the window, no current is fed back and the circuit operates without any offset level correction (column 3, lines 8-59; figure 2).

iii. U.S. Patent 6148047, Mohindra; Mohindra teaches isolation of the dc components of the SAT and Manchester code on the local oscillator cancellation scheme by producing a frequency offset in the local oscillator 608. This frequency offset operates to make the modulation resulting from the dc offset of

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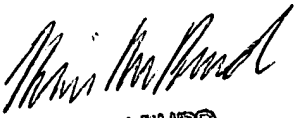
the SAT and Manchester components very small in comparison to the local oscillator 608 leakage dc offset (column 5, lines 19-30; figure 6).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anika F. Talapatra whose telephone number is 571-272-6039. The examiner can normally be reached on Monday to Friday, 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A.T.


KEVIN BURD
PRIMARY EXAMINER